

SEQUENCE LISTING

<110> UNIVERSITA' DEGLI STUDI DI TORINO
 Mara BRANCACCIO
 Lorenzo SILENGO
 Fiorella ALTRUDA
 Giuseppe LEMBO
 Luigi FRATTA
 Guido TARONE

<120> MELUSIN, A MUSCLE SPECIFIC PROTEIN, AS A DRUG TARGET FOR PREVENTION
 AND TREATMENT OF HEART FAILURE

<130> 4636-25 / BUS5222-CF

<140> US 10/538,736
 <141> 2005-08-11

<150> PCT/IT2002/000807
 <151> 2002-12-19

<160> 2

<170> MS Word

<210> 1
 <211> 350
 <212> PRT
 <213> Mus musculus

<400> 1

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Leu | Leu | Cys | Tyr | Asn | Lys | Gly | Cys | Gly | Gln | His | Phe | Asp | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Thr | Asn | Leu | Pro | Asp | Ser | Cys | Arg | Tyr | His | Pro | Gly | Val | Pro | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | His | Asp | Ala | Leu | Lys | Gly | Trp | Ser | Cys | Cys | Arg | Lys | Arg | Thr | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Phe | Ser | Glu | Phe | Leu | Asn | Ile | Lys | Gly | Cys | Thr | Val | Gly | Leu | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Cys | Ala | Glu | Lys | Leu | Pro | Glu | Val | Pro | Pro | Gln | Pro | Glu | Gly | Pro | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Thr | Ser | Ser | Leu | Gln | Glu | Gln | Lys | Pro | Leu | Asn | Thr | Ile | Pro | Lys | Ser |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ala | Glu | Thr | Leu | Phe | Arg | Glu | Arg | Pro | Lys | Ser | Glu | Met | Pro | Pro | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Leu | Pro | Leu | Leu | Ile | Ser | Gln | Ala | Leu | Gly | Val | Ala | Leu | Glu | Gln |
| | | | 115 | | | | 120 | | | | | 125 | | | |

Lys Glu Leu Asp Gln Glu Pro Gly Ala Gly Leu Asp Asn Ser Leu Ile
 130 135 140
 Trp Thr Gly Ser Ser Cys Gln Asn Pro Gly Cys Asp Ala Val Tyr Gln
 145 150 155 160
 Gly Pro Glu Ser Asp Ala Thr Pro Cys Thr Tyr His Pro Gly Ala Pro
 165 170 175
 Arg Phe His Glu Gly Met Lys Ser Trp Ser Cys Cys Gly Ile Gln Thr
 180 185 190
 Leu Asp Phe Gly Ala Phe Leu Ala Gln Pro Gly Cys Arg Val Gly Arg
 195 200 205
 His Asp Trp Ala Lys Gln Leu Pro Ala Ser Cys Arg His Asp Trp His
 210 215 220
 Gln Thr Asp Ser Val Val Val Leu Thr Val Tyr Gly Gln Ile Pro Leu
 225 230 235 240
 Pro Ala Phe Asn Trp Val Lys Ala Ser Gln Thr Glu Leu His Val His
 245 250 255
 Ile Val Phe Asp Gly Asn Arg Val Phe Gln Ala Gln Met Lys Leu Trp
 260 265 270
 Gly Val Ile Asn Val Glu Gln Ser Ser Val Ser Leu Met Pro Ser Arg
 275 280 285
 Val Glu Ile Ser Leu Val Lys Ala Asp Pro Gly Ser Trp Ala Gln Leu
 290 295 300
 Glu His Pro Asp Ser Leu Ala Glu Lys Ala Arg Ala Gly Val Leu Leu
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 Glu Met Asp Glu Glu Glu Ser Glu Asp Ser Asp Asp Asp Leu Ser Trp
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 Thr Glu Glu Glu Asp Glu Glu Glu Glu Glu Ala Met Gly Glu
 340 345 350
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 <212> PRT
 <213> Homo sapiens
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 Met Ser Leu Leu Cys Arg Asn Lys Gly Cys Gly Gln His Phe Asp Pro
 1 5 10 15
 Asn Thr Asn Leu Pro Asp Ser Cys Cys His His Pro Gly Val Pro Ile
 20 25 30
 Phe His Asp Ala Leu Lys Gly Trp Ser Cys Cys Arg Lys Arg Thr Val
 35 40 45

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Phe | Ser | Glu | Phe | Leu | Asn | Ile | Lys | Gly | Cys | Thr | Met | Gly | Pro | His | 50 | 55 | 60 | |
| Cys | Ala | Glu | Lys | Leu | Pro | Glu | Ala | Pro | Gln | Pro | Glu | Gly | Pro | Ala | Thr | 65 | 70 | 75 | 80 |
| Ser | Ser | Ser | Leu | Gln | Glu | Gln | Lys | Pro | Leu | Asn | Val | Ile | Pro | Lys | Ser | 85 | 90 | 95 | |
| Ala | Glu | Thr | Leu | Arg | Arg | Glu | Arg | Pro | Lys | Ser | Glu | Leu | Pro | Leu | Lys | 100 | 105 | 110 | |
| Leu | Leu | Pro | Leu | Asn | Ile | Ser | Gln | Ala | Leu | Glu | Met | Ala | Leu | Glu | Gln | 115 | 120 | 125 | |
| Lys | Glu | Leu | Asp | Gln | Glu | Pro | Gly | Ala | Gly | Leu | Asp | Ser | Leu | Ile | Arg | 130 | 135 | 140 | |
| Thr | Gly | Ser | Ser | Cys | Gln | Asn | Pro | Gly | Cys | Asp | Ala | Val | Tyr | Gln | Gly | 145 | 150 | 155 | 160 |
| Pro | Glu | Ser | Asp | Ala | Thr | Pro | Cys | Thr | Tyr | His | Pro | Gly | Ala | Pro | Arg | 165 | 170 | 175 | |
| Phe | His | Glu | Gly | Met | Lys | Ser | Trp | Ser | Cys | Cys | Gly | Ile | Gln | Thr | Leu | 180 | 185 | 190 | |
| Asp | Phe | Gly | Ala | Phe | Leu | Ala | Gln | Pro | Gly | Cys | Arg | Val | Gly | Arg | His | 195 | 200 | 205 | |
| Asp | Trp | Gly | Lys | Gln | Leu | Pro | Ala | Ser | Cys | Arg | His | Asp | Trp | His | Gln | 210 | 215 | 220 | |
| Thr | Asp | Ser | Leu | Val | Val | Val | Thr | Val | Tyr | Gly | Gln | Ile | Pro | Leu | Pro | 225 | 230 | 235 | 240 |
| Ala | Phe | Asn | Trp | Val | Lys | Ala | Ser | Gln | Thr | Glu | Leu | His | Val | His | Ile | 245 | 250 | 255 | |
| Val | Phe | Asp | Gly | Asn | Arg | Val | Phe | Gln | Ala | Gln | Met | Lys | Leu | Trp | Gly | 260 | 265 | 270 | |
| Val | Ile | Asn | Val | Glu | Gln | Ser | Ser | Val | Phe | Leu | Met | Pro | Ser | Arg | Val | 275 | 280 | 285 | |
| Glu | Ile | Ser | Leu | Val | Lys | Ala | Asp | Pro | Gly | Ser | Trp | Ala | Gln | Leu | Glu | 290 | 295 | 300 | |
| His | Pro | Asp | Ala | Leu | Ala | Lys | Lys | Ala | Arg | Ala | Gly | Val | Val | Leu | Glu | 305 | 310 | 315 | 320 |
| Met | Asp | Glu | Glu | Glu | Ser | Asp | Asp | Ser | Asp | Asp | Asp | Leu | Ser | Trp | Thr | 325 | 330 | 335 | |
| Glu | Glu | Glu | Glu | Glu | Glu | Glu | Glu | Ala | Met | Gly | Glu | | | | | 340 | 345 | | |